



71160.ST25  
SEQUENCE LISTING

<110> Hanson, Veneta  
Spiera, Harry

<120> Diagnostic Test for the Detection of Autoantibodies in Patient Suffering From  
Neuropsychiatric Lupus

<130> 0028/71160

<140> US 10/676,691

<141> 2003-09-30

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## 71160.ST25

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&lt;210&gt; 3

&lt;211&gt; 2218

&lt;212&gt; DNA

&lt;213&gt; Rattus Sp.

&lt;400&gt; 3

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## 71160.ST25

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&lt;211&gt; 1162

&lt;212&gt; DNA

&lt;213&gt; homo sapiens

&lt;400&gt; 4

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&lt;210&gt; 5

&lt;211&gt; 2273

&lt;212&gt; DNA

&lt;213&gt; Chicken

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<400> 5
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## 71160.ST25

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&lt;210&gt; 6

&lt;211&gt; 2222

&lt;212&gt; DNA

&lt;213&gt; Rattus Sp.

&lt;400&gt; 6

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## 71160.ST25

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&lt;210&gt; 7

&lt;211&gt; 28

&lt;212&gt; PRT

&lt;213&gt; Rattus Sp.

## 71160.ST25

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Asn Pro Thr Val Glu Val Asp Leu His Thr Ala Lys  
 20 25

&lt;210&gt; 8

&lt;211&gt; 124

&lt;212&gt; DNA

&lt;213&gt; Rattus Sp.

&lt;400&gt; 8

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 cgtg 124

&lt;210&gt; 9

&lt;211&gt; 1162

&lt;212&gt; DNA

&lt;213&gt; Rattus Sp.

&lt;400&gt; 9

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71160.ST25

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<210> 10

<211> 28

<212> PRT

<213> Rattus Sp.

<400> 10

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Met Ser Ile Gln Lys Ile Trp Ala Arg Glu Ile Leu Asp Ser Arg Gly
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Asn Pro Thr Val Glu Val Asp Leu His Thr Ala Lys
          20          25

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<210> 11

<211> 124

<212> DNA

<213> Rattus Sp.

<400> 11

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gactcccggtg ggaatcccac cgtggagggtg gatctccata ctgccaaagg tgatgattag 120
cgtg 124

```



&lt;210&gt; 12

&lt;211&gt; 513

&lt;212&gt; DNA

&lt;213&gt; Rattus Sp.

&lt;400&gt; 12

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&lt;210&gt; 13

&lt;211&gt; 434

&lt;212&gt; PRT

&lt;213&gt; Rattus Sp.

&lt;400&gt; 13

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Met Ser Ile Gln Lys Ile Trp Ala Arg Glu Ile Leu Asp Ser Arg Gly
1           5           10          15

Asn Pro Thr Val Glu Val Asp Leu His Thr Ala Lys Gly Leu Phe Arg
          20          25          30

Ala Ala Val Pro Ser Gly Ala Ser Thr Gly Ile Tyr Glu Ala Leu Glu
          35          40          45

Leu Arg Asp Gly Asp Lys Gln Arg Tyr Leu Gly Lys Gly Val Leu Lys
          50          55          60

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## 71160.ST25

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65 70 75 80

Gly Leu Ser Val Val Glu Gln Glu Lys Leu Asp Asn Leu Met Leu Glu  
85 90 95

Leu Asp Gly Thr Glu Asn Lys Ser Lys Phe Gly Ala Asn Ala Ile Leu  
100 105 110

Gly Val Ser Leu Ala Val Cys Lys Ala Gly Ala Ala Glu Lys Asp Leu  
115 120 125

Pro Leu Tyr Arg His Ile Ala Gln Leu Ala Gly Asn Ser Asp Leu Ile  
130 135 140

Leu Pro Val Pro Ala Phe Asn Val Ile Asn Gly Gly Ser His Ala Gly  
145 150 155 160

Asn Lys Leu Ala Met Gln Glu Phe Met Ile Leu Pro Val Gly Ala Glu  
165 170 175

Ser Phe Arg Asp Ala Met Arg Leu Gly Ala Glu Val Tyr His Thr Leu  
180 185 190

Lys Gly Val Ile Lys Asp Lys Tyr Gly Lys Asp Ala Thr Asn Val Gly  
195 200 205

Asp Glu Gly Gly Phe Ala Pro Asn Ile Leu Glu Asn Ser Glu Ala Leu  
210 215 220

Glu Leu Val Lys Glu Ala Ile Asp Lys Ala Gly Tyr Thr Glu Lys Met  
225 230 235 240

Val Ile Gly Met Asp Val Ala Ala Ser Glu Phe Tyr Arg Asp Gly Lys  
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Tyr Asp Leu Asp Phe Lys Ser Pro Ala Asp Pro Ser Arg Cys Ile Thr  
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Gly Asp Gln Leu Gly Ala Leu Tyr Gln Asp Phe Val Arg Asn Tyr Pro  
275 280 285

Val Val Ser Ile Glu Asp Pro Phe Asp Gln Asp Asp Trp Ala Ala Trp  
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Thr Val Thr Asn Pro Lys Arg Ile Glu Arg Ala Val Glu Glu Lys Ala  
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Cys Asn Cys Leu Leu Leu Lys Val Asn Gln Ile Gly Ser Val Thr Glu  
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Ala Ile Gln Ala Cys Lys Leu Ala Gln Glu Asn Gly Trp Gly Val Met  
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Val Ser His Arg Ser Gly Glu Thr Glu Asp Thr Phe Ile Ala Asp Leu  
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Val Val Gly Leu Cys Thr Gly Gln Ile Lys Thr Gly Ala Pro Cys Arg  
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Val Leu

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<212> DNA

<213> Rattus Sp.

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362

&lt;210&gt; 15

&lt;211&gt; 434

&lt;212&gt; PRT

&lt;213&gt; Rattus Sp.

&lt;400&gt; 15

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Leu Arg Asp Gly Asp Lys Gln Arg Tyr Leu Gly Lys Gly Val Leu Lys  
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Gly Val Ser Leu Ala Val Cys Lys Ala Gly Ala Ala Glu Lys Asp Leu  
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Pro Leu Tyr Arg His Ile Ala Gln Leu Ala Gly Asn Ser Asp Leu Ile  
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Leu Pro Val Pro Ala Phe Asn Val Ile Asn Gly Gly Ser His Ala Gly  
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Asn Lys Leu Ala Met Gln Glu Phe Met Ile Leu Pro Val Gly Ala Glu  
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 Tyr Asp Leu Asp Phe Lys Ser Pro Ala Asp Pro Ser Arg Cys Ile Thr  
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Val Leu

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<211> 2284

<212> DNA

<213> Rattus Sp.

<400> 16

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&lt;212&gt; DNA

&lt;213&gt; Rattus Sp.

&lt;400&gt; 17

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&lt;212&gt; DNA

&lt;213&gt; Rattus Sp.

&lt;400&gt; 18

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&lt;211&gt; 1980

&lt;212&gt; DNA

&lt;213&gt; Rattus Sp.

&lt;400&gt; 19

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acttgccct ctatgccac attgctcaac tggctgggaa ctccgacctc atcctgcccg      1260
tgccggtgag cattgccctt gcctagccct tccaggggag gagggagaat gcaaccaagt      1320
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&lt;210&gt; 20

&lt;211&gt; 1316

&lt;212&gt; DNA

&lt;213&gt; Rattus Sp.

&lt;400&gt; 20

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71160.ST25

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<210> 21

<211> 434

<212> PRT

<213> Homo Sapiens

<400> 21

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Met Ser Ile Glu Lys Ile Trp Ala Arg Glu Ile Leu Asp Ser Arg Gly
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Asn Pro Thr Val Glu Val Asp Leu Tyr Thr Ala Lys Gly Leu Phe Arg
          20          25          30

Ala Ala Val Pro Ser Gly Ala Ser Thr Gly Ile Tyr Glu Ala Leu Glu
          35          40          45

Leu Arg Asp Gly Asp Lys Gln Arg Tyr Leu Gly Lys Gly Val Leu Lys
          50          55          60

Ala Val Asp His Ile Asn Ser Thr Ile Ala Pro Ala Leu Ile Ser Ser
65          70          75          80

Gly Leu Ser Val Val Glu Gln Glu Lys Leu Asp Asn Leu Met Leu Glu
          85          90          95

Leu Asp Gly Thr Glu Asn Lys Ser Lys Phe Gly Ala Asn Ala Ile Leu
          100          105          110

Gly Val Ser Leu Ala Val Cys Lys Ala Gly Ala Ala Glu Arg Glu Leu

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115							120									125
Pro	Leu	Tyr	Arg	His	Ile	Ala	Gln	Leu	Ala	Gly	Asn	Ser	Asp	Leu	Ile	
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Leu	Pro	Val	Pro	Ala	Phe	Asn	Val	Ile	Asn	Gly	Gly	Ser	His	Ala	Gly	
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Asn	Lys	Leu	Ala	Met	Gln	Glu	Phe	Met	Ile	Leu	Pro	Val	Gly	Ala	Glu	
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Ser	Phe	Arg	Asp	Ala	Met	Arg	Leu	Gly	Ala	Glu	Val	Tyr	His	Thr	Leu	
			180					185					190			
Lys	Gly	Val	Ile	Lys	Asp	Lys	Tyr	Gly	Lys	Asp	Ala	Thr	Asn	Val	Gly	
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Asp	Glu	Gly	Gly	Phe	Ala	Pro	Asn	Ile	Leu	Glu	Asn	Ser	Glu	Ala	Leu	
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Glu	Leu	Val	Lys	Glu	Ala	Ile	Asp	Lys	Ala	Gly	Tyr	Thr	Glu	Lys	Ile	
225					230					235					240	
Val	Ile	Gly	Met	Asp	Val	Ala	Ala	Ser	Glu	Phe	Tyr	Arg	Asp	Gly	Lys	
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Tyr	Asp	Leu	Asp	Phe	Lys	Ser	Pro	Thr	Asp	Pro	Ser	Arg	Tyr	Ile	Thr	
			260					265					270			
Gly	Asp	Gln	Leu	Gly	Ala	Leu	Tyr	Gln	Asp	Phe	Val	Arg	Asp	Tyr	Pro	
		275					280					285				
Val	Val	Ser	Ile	Glu	Asp	Pro	Phe	Asp	Gln	Asp	Asp	Trp	Ala	Ala	Trp	
	290					295					300					
Ser	Lys	Phe	Thr	Ala	Asn	Val	Gly	Ile	Gln	Ile	Val	Gly	Asp	Asp	Leu	
305					310					315					320	
Thr	Val	Thr	Asn	Pro	Lys	Arg	Ile	Glu	Arg	Ala	Val	Glu	Glu	Lys	Ala	
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Cys	Asn	Cys	Leu	Leu	Leu	Lys	Val	Asn	Gln	Ile	Gly	Ser	Val	Thr	Glu	
			340					345					350			

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Ala Ile Gln Ala Cys Lys Leu Ala Gln Glu Asn Gly Trp Gly Val Met  
355 360 365

Val Ser His Arg Ser Gly Glu Thr Glu Asp Thr Phe Ile Ala Asp Leu  
370 375 380

Val Val Gly Leu Cys Thr Gly Gln Ile Lys Thr Gly Ala Pro Cys Arg  
385 390 395 400

Ser Glu Arg Leu Ala Lys Tyr Asn Gln Leu Met Arg Ile Glu Glu Glu  
405 410 415

Leu Gly Asp Glu Ala Arg Phe Ala Gly His Asn Phe Arg Asn Pro Ser  
420 425 430

Val Leu

<210> 22

<211> 434

<212> PRT

<213> Rattus Sp.

<400> 22

Met Ser Ile Gln Lys Ile Trp Ala Arg Glu Ile Leu Asp Ser Arg Gly  
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Asn Pro Thr Val Glu Val Asp Leu His Thr Ala Lys Gly Leu Phe Arg  
20 25 30

Ala Ala Val Pro Ser Gly Ala Ser Thr Gly Ile Tyr Glu Ala Leu Glu  
35 40 45

Leu Arg Asp Gly Asp Lys Gln Arg Tyr Leu Gly Lys Gly Val Leu Lys  
50 55 60

Ala Val Asp His Ile Asn Ser Thr Ile Ala Pro Ala Leu Ile Ser Ser  
65 70 75 80

Gly Leu Ser Val Val Glu Gln Glu Lys Leu Asp Asn Leu Met Leu Glu  
85 90 95



## 71160.ST25

Leu Asp Gly Thr Glu Asn Lys Ser Lys Phe Gly Ala Asn Ala Ile Leu  
 100 105 110

Gly Val Ser Leu Ala Val Cys Lys Ala Gly Ala Ala Glu Lys Asp Leu  
 115 120 125

Pro Leu Tyr Arg His Ile Ala Gln Leu Ala Gly Asn Ser Asp Leu Ile  
 130 135 140

Leu Pro Val Pro Ala Phe Asn Val Ile Asn Gly Gly Ser His Ala Gly  
 145 150 155 160

Asn Lys Leu Ala Met Gln Glu Phe Met Ile Leu Pro Val Gly Ala Glu  
 165 170 175

Ser Phe Arg Asp Ala Met Arg Leu Gly Ala Glu Val Tyr His Thr Leu  
 180 185 190

Lys Gly Val Ile Lys Asp Lys Tyr Gly Lys Asp Ala Thr Asn Val Gly  
 195 200 205

Asp Glu Gly Gly Phe Ala Pro Asn Ile Leu Glu Asn Ser Glu Ala Leu  
 210 215 220

Glu Leu Val Lys Glu Ala Ile Asp Lys Ala Gly Tyr Thr Glu Lys Met  
 225 230 235 240

Val Ile Gly Met Asp Val Ala Ala Ser Glu Phe Tyr Arg Asp Gly Lys  
 245 250 255

Tyr Asp Leu Asp Phe Lys Ser Pro Ala Asp Pro Ser Arg Cys Ile Thr  
 260 265 270

Gly Asp Gln Leu Gly Ala Leu Tyr Gln Asp Phe Val Arg Asn Tyr Pro  
 275 280 285

Val Val Ser Ile Glu Asp Pro Phe Asp Gln Asp Asp Trp Ala Ala Trp  
 290 295 300

Ser Lys Phe Thr Ala Asn Val Gly Ile Gln Ile Val Gly Asp Asp Leu  
 305 310 315 320

Thr Val Thr Asn Pro Lys Arg Ile Glu Arg Ala Val Glu Glu Lys Ala  
 325 330 335

Cys Asn Cys Leu Leu Leu Lys Val Asn Gln Ile Gly Ser Val Thr Glu  
                   340                  345                  350

Ala Ile Gln Ala Cys Lys Leu Ala Gln Glu Asn Gly Trp Gly Val Met  
           355                  360                  365

Val Ser His Arg Ser Gly Glu Thr Glu Asp Thr Phe Ile Ala Asp Leu  
       370                  375                  380

Val Val Gly Leu Cys Thr Gly Gln Ile Lys Thr Gly Ala Pro Cys Arg  
   385                  390                  395                  400

Ser Glu Arg Leu Ala Lys Tyr Asn Gln Leu Met Arg Ile Glu Glu Glu  
                   405                  410                  415

Leu Gly Glu Glu Ala Arg Phe Ala Gly His Asn Phe Arg Asn Pro Ser  
           420                  425                  430

Val Leu

<210> 23

<211> 434

<212> PRT

<213> homo sapiens

<400> 23

Met Ser Ile Glu Lys Ile Trp Ala Arg Glu Ile Leu Asp Ser Arg Gly  
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Asn Pro Thr Val Glu Val Asp Leu Tyr Thr Ala Lys Gly Leu Phe Arg  
           20                  25                  30

Ala Ala Val Pro Ser Gly Ala Ser Thr Gly Ile Tyr Glu Ala Leu Glu  
       35                  40                  45

Leu Arg Asp Gly Asp Lys Gln Arg Tyr Leu Gly Lys Gly Val Leu Lys  
       50                  55                  60

Ala Val Asp His Ile Asn Ser Thr Ile Ala Pro Ala Leu Ile Ser Ser

65	71160.ST25										80				
	75														
Gly	Leu	Ser	Val	Val	Glu	Gln	Glu	Lys	Leu	Asp	Asn	Leu	Met	Leu	Glu
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Leu	Asp	Gly	Thr	Glu	Asn	Lys	Ser	Lys	Phe	Gly	Ala	Asn	Ala	Ile	Leu
			100					105					110		
Gly	Val	Ser	Leu	Ala	Val	Cys	Lys	Ala	Gly	Ala	Ala	Glu	Arg	Glu	Leu
		115					120					125			
Pro	Leu	Tyr	Arg	His	Ile	Ala	Gln	Leu	Ala	Gly	Asn	Ser	Asp	Leu	Ile
	130					135					140				
Leu	Pro	Val	Pro	Ala	Phe	Asn	Val	Ile	Asn	Gly	Gly	Ser	His	Ala	Gly
145					150					155					160
Asn	Lys	Leu	Ala	Met	Gln	Glu	Phe	Met	Ile	Leu	Pro	Val	Gly	Ala	Glu
				165					170					175	
Ser	Phe	Arg	Asp	Ala	Met	Arg	Leu	Gly	Ala	Glu	Val	Tyr	His	Thr	Leu
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Lys	Gly	Val	Ile	Lys	Asp	Lys	Tyr	Gly	Lys	Asp	Ala	Thr	Asn	Val	Gly
		195					200					205			
Asp	Glu	Gly	Gly	Phe	Ala	Pro	Asn	Ile	Leu	Glu	Asn	Ser	Glu	Ala	Leu
	210					215					220				
Glu	Leu	Val	Lys	Glu	Ala	Ile	Asp	Lys	Ala	Gly	Tyr	Thr	Glu	Lys	Ile
225					230					235					240
Val	Ile	Gly	Met	Asp	Val	Ala	Ala	Ser	Glu	Phe	Tyr	Arg	Asp	Gly	Lys
				245					250					255	
Tyr	Asp	Leu	Asp	Phe	Lys	Ser	Pro	Thr	Asp	Pro	Ser	Arg	Tyr	Ile	Thr
			260					265					270		
Gly	Asp	Gln	Leu	Gly	Ala	Leu	Tyr	Gln	Asp	Phe	Val	Arg	Asp	Tyr	Pro
		275					280					285			
Val	Val	Ser	Ile	Glu	Asp	Pro	Phe	Asp	Gln	Asp	Asp	Trp	Ala	Ala	Trp
	290					295					300				

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Ser Lys Phe Thr Ala Asn Val Gly Ile Gln Ile Val Gly Asp Asp Leu  
 305 310 315 320

Thr Val Thr Asn Pro Lys Arg Ile Glu Arg Ala Val Glu Glu Lys Ala  
 325 330 335

Cys Asn Cys Leu Leu Leu Lys Val Asn Gln Ile Gly Ser Val Thr Glu  
 340 345 350

Ala Ile Gln Ala Cys Lys Leu Ala Gln Glu Asn Gly Trp Gly Val Met  
 355 360 365

Val Ser His Arg Ser Gly Glu Thr Glu Asp Thr Phe Ile Ala Asp Leu  
 370 375 380

Val Val Gly Leu Cys Thr Gly Gln Ile Lys Thr Gly Ala Pro Cys Arg  
 385 390 395 400

Ser Glu Arg Leu Ala Lys Tyr Asn Gln Leu Met Arg Ile Glu Glu Glu  
 405 410 415

Leu Gly Asp Glu Ala Arg Phe Ala Gly His Asn Phe Arg Asn Pro Ser  
 420 425 430

Val Leu

<210> 24

<211> 434

<212> PRT

<213> Chicken

<400> 24

Met Ala Val Glu Arg Ile His Ala Arg Glu Ile Leu Asp Ser Arg Gly  
 1 5 10 15

Asn Pro Thr Val Glu Val Asp Leu Tyr Thr His Lys Gly Met Phe Arg  
 20 25 30

Ala Ala Val Pro Ser Gly Ala Ser Thr Gly Ile Tyr Glu Ala Leu Glu  
 35 40 45

## 71160.ST25

Leu Arg Asp Asn Asp Lys Ser Arg Phe Leu Gly Lys Gly Val Leu Gln  
 50 55 60  
 Ala Val Asp His Ile Asn Ser Thr Val Ala Pro Ala Ile Val Gly Ser  
 65 70 75 80  
 Gly Leu Ser Val Val Asp Gln Glu Lys Ile Asp Asn Leu Met Leu Glu  
 85 90 95  
 Met Asp Gly Thr Glu Asn Lys Ser Lys Phe Gly Ala Asn Ala Ile Leu  
 100 105 110  
 Gly Val Ser Leu Ala Val Cys Lys Ala Gly Ala Ala Glu Lys Asp Val  
 115 120 125  
 Pro Leu Tyr Arg His Ile Ala Asp Leu Ala Gly Asn Ser Asp Leu Ile  
 130 135 140  
 Leu Pro Val Pro Ala Phe Asn Val Ile Asn Gly Gly Ser His Ala Gly  
 145 150 155 160  
 Asn Lys Leu Ala Met Gln Glu Phe Met Ile Leu Pro Val Gly Ala Glu  
 165 170 175  
 Ser Phe Arg Asp Ala Met Arg Ile Gly Ala Glu Val Tyr His Asn Leu  
 180 185 190  
 Lys Ser Val Ile Lys Glu Lys Tyr Gly Lys Asp Ala Thr Asn Val Gly  
 195 200 205  
 Asp Glu Gly Gly Phe Ala Pro Asn Ile Leu Glu Asn Ser Glu Ala Leu  
 210 215 220  
 Glu Leu Leu Lys Glu Ala Ile Asp Lys Ala Gly Tyr Thr Asp Lys Ile  
 225 230 235 240  
 Val Ile Gly Met Asp Val Ala Ala Ser Glu Phe Tyr Arg Asp Gly Lys  
 245 250 255  
 Tyr Asp Leu Asp Phe Lys Ser Pro Asp Asp Pro Ser Arg Tyr Ile Ser  
 260 265 270  
 Ala Asp Glu Leu Gly Asp Leu Tyr Gln Ser Phe Val Arg Ala Tyr Pro  
 275 280 285

Val Leu Ser Ile Glu Asp Pro Phe Asp Gln Asp Asp Trp Glu Ala Trp  
 290 295 300

Ser Lys Phe Thr Ala Asn Val Gly Ile Gln Ile Val Gly Asp Asp Leu  
 305 310 315 320

Thr Val Thr Asn Pro Lys Arg Ile Glu Arg Ala Val Glu Glu Lys Ala  
 325 330 335

Cys Asn Cys Leu Leu Leu Lys Val Asn Gln Ile Gly Ser Val Thr Glu  
 340 345 350

Ala Ile Gln Ala Cys Lys Leu Ala Gln Glu Asn Gly Trp Gly Val Met  
 355 360 365

Val Ser His Arg Ser Gly Glu Thr Glu Asp Thr Phe Ile Ala Asp Leu  
 370 375 380

Val Val Ala Leu Cys Thr Gly Gln Ile Lys Thr Gly Ala Pro Cys Arg  
 385 390 395 400

Ser Glu Arg Leu Ala Lys Tyr Asn Gln Leu Met Arg Ile Glu Glu Glu  
 405 410 415

Leu Gly Asp Glu Ala Arg Phe Ala Gly His Asn Phe Arg Asn Pro Ser  
 420 425 430

Val Leu